

**Notice of Allowability**

Applicati n No.

10/616,281

Examin r

Jacques M Saint-Surin

Applicant(s)

KING, RETHEL C.

Art Unit

2856

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application of 07/09/03 and the amendment of 01/09/04.
2. ☒ The allowed claim(s) is/are 1-21 and 30-33.
3. ☒ The drawings filed on 09 July 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of the:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
(a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.  
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached  
1) ☐ hereto or 2) ☐ to Paper No. \_\_\_\_\_.  
(b) ☐ including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the Examiner.  
(c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- 1 ☒ Notice of References Cited (PTO-892)  
2 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3 ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No. 2  
4 ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
- 5 ☐ Notice of Informal Patent Application (PTO-152)  
6 ☒ Interview Summary (PTO-413), Paper No. 3  
7 ☒ Examiner's Amendment/Comment  
8 ☒ Examiner's Statement of Reasons for Allowance  
9 ☐ Other

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1. During a telephone conversation with Joseph Guy on 01/09/04, a provisional election was made without traverse to prosecute the invention of Group 1, claims 1-21 and 30-33. Claims 1-11 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

2. This application is in condition for allowance except for the presence of claims 22-29 to invention non-elected without traverse. Accordingly, claims 22-29 have been cancelled.

#### **EXAMINER'S AMENDMENT**

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Joseph Guy on 01/09/04.

4. The application has been amended as follows:

##### In the Claims:

In claim 3, line 1, delete "3" and insert --2--.

Claims 22-29 have been canceled.

#### ***Reasons for Allowance***

5. The following is an examiner's statement of reasons for allowance:

Stouffer (US Patent 5,316,003) discloses a method comprises positioning the

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transducer over a last few ribs of the animal or carcass such that the transducer is parallel to a backbone of the animal or carcass and the transducer is not parallel to fat interfaces of the animal or carcass.

Ellis (US Patent 6,084,407) discloses FIG. 2 shows a cross-sectional view, taken between the twelfth and thirteenth ribs, of the animal 102 (FIG. 1) and illustrates the location where the scan is typically taken in a beef animal. Referring to FIG. 2, circle 202 illustrates the location for a typical MRI scan, which would produce data showing the structure of the muscle fascia 203, the spine 204, cartilage between the ribs 205, muscle area 206, back fat 207, hide 208 and hair 209 of the animal 102.

Bond et al. (US Patent 6,167,759) discloses a single transducer 20 can be employed, as discussed above, or an assembly with several transducers could be placed in contact with the surface of the meat sample 10. The meat sample can be a section of tissue cut from the rib-eye area, an exposed portion of the carcass hanging in the packing plant, or an interior portion of the live animal. The ultrasonic signal from the transducer may travel through several layers of tissue or fat before reaching the tissue volume to be graded. The transducer assembly can be implemented using a collection or sparse array of transducers that could operate at different frequencies, angles of incidence to the meat, and have different beam characteristics (i.e., focal lengths).

Liu et al. (U.S. Pat. No. 5,339,815) discloses a method and apparatus wherein an ultrasonic transducer is centered in a longitudinal direction over the last few ribs of the animal or carcass and the ultrasonic image is of a ribline, a longissimus dorsi muscle and fat layers above the muscle such that the specified window starts below the ribline

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of the animal or carcass. A fat depth is determined from a distance between the second interface line and a specified plane of contact between the animal or carcass and the ultrasonic transducer adjusted for any positioning equipment or stand-off gel. A muscle depth is determined from a distance between the first and second interfaces line. The output of the system includes the fat depth and the muscle depth for the animal or carcass from which the image was taken

However, none of the above references discloses "a method for categorizing animals by meat quality comprising obtaining an ultrasound measurement of longissimus dorsi muscle between the last rib and 1<sup>st</sup> lumbar at weaning age and allocating said specimen into a category based on said angle of connective tissue" as recited in claim 1. These limitations are neither taught nor made obvious by the prior art of record.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacques M Saint-Surin whose telephone number is (703) 308-3698. The examiner can normally be reached on Monday-Friday.

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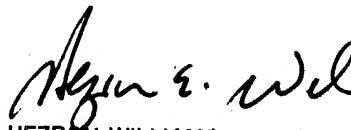
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (703) 305-4705. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 0956.



Jacques M. Saint-Surin  
January 10, 2004



HEZRON WILLIAMS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800